

WHAT IS CLAIMED IS:

1 1. A method for managing client transactions requesting access to a shared
2 resource, comprising:
3 logging client transactions in a log file from multiple clients;
4 determining one client transmitting data at a transmission rate less than a threshold
5 transmission rate; and
6 denying subsequent transactions from the determined client access to the shared
7 resource to provide additional space in the log file for new transactions from additional clients
8 requesting access to the resource.

1 2. The method of claim 1, further comprising:
2 removing all pending transaction of the determined client from the log file.

1 3. The method of claim 1, wherein clients submit transactions requesting the
2 resource during a session that the clients initiate, further comprising:
3 determining one client session active longer than a threshold time period, wherein the
4 determination of whether the client data transmission rate is less than the threshold transmission
5 rate is made for the determined client whose session is active longer than the threshold time
6 period, and wherein subsequent transactions are denied access to the shared resource for the
7 client having the session active longer than the threshold period of time and having the data
8 transmission rate less than the threshold transmission rate.

1 4. The method of claim 1, further comprising:
2 determining one pending transaction whose access to the resource has completed;
3 removing the determined pending transaction from the log file.

1 5. The method of claim 4, further comprising:
2 determining one client that has transmitted a threshold amount of data, wherein the
3 determination and removal from the log file of pending transactions whose access to the
4 resource has completed is made for all the pending transactions of the determined client that has
5 transmitted the threshold amount of data.

1 6. The method of claim 1, wherein an oldest pending transaction logged in the log
2 file is capable of preventing new transactions from being added to the log file.

1 7. The method of claim 1, further comprising:
2 providing a first pointer pointing to an oldest pending transaction in the log file that is
3 capable of preventing new transactions from being added to the log file; and
4 if one of the removed transactions is the oldest pending transaction in the log file, then
5 adjusting the first pointer to point to the next oldest pending transaction in the log file, whereby
6 adjusting the first pointer frees space in the log file for new transactions to be added.

1 8. The method of claim 7, further comprising:
2 providing a second pointer pointing to a most recently added transaction to the log file;
3 and
4 adding a new transaction to the log file by writing information on the new transaction to
5 an address in the log file following the second pointer and adjusting the second pointer to point
6 to the address of the added new transaction, wherein one new transaction cannot be added to
7 the log file if the first pointer addresses a location in the log file adjacent to the location
8 addressed by the second pointer.

1 9. The method of claim 8, wherein new transactions are added to sequential
2 addresses in the log file, further comprising:
3 if the second pointer is at the last address in the log file, then writing information on the
4 new transaction to the first address in the log file and adjusting the second pointer to point to the
5 first address in the log file.

1 10. The method of claim 1, wherein access to the resource is provided through a
2 server, wherein the server maintains the log file.

1 11. The method of claim 10, further comprising:
2 redirecting transactions from the determined client to an additional server providing
3 access to another copy of the resource requested by the client transactions.

1 12. The method of claim 1, wherein the resource comprises a storage device and
2 wherein the transactions provide updates to data in the storage device.

1 13. The method of claim 12, wherein the update transactions are provided by a
2 client backup program to backup client data in the storage device.

1 14. A system for managing client transactions, comprising:
2 a shared resource, wherein the client transactions request access to the shared
3 resource;
4 a computer readable medium including a log file;
5 means for logging client transactions in the log file from multiple clients;
6 means for determining one client transmitting data at a transmission rate less than a
7 threshold transmission rate; and

8 means for denying subsequent transactions from the determined client access to the
9 shared resource to provide additional space in the log file for new transactions from additional
10 clients requesting access to the resource.

1 15. The system of claim 14, further comprising:
2 means for removing all pending transaction of the determined client from the log file.

1 16. The system of claim 14, wherein clients submit transactions requesting the
2 resource during a session that the clients initiate, further comprising:
3 means for determining one client session active longer than a threshold time period,
4 wherein the determination of whether the client data transmission rate is less than the threshold
5 transmission rate is made for the determined client whose session is active longer than the
6 threshold time period, and wherein subsequent transactions are denied access to the shared
7 resource for the client having the session active longer than the threshold period of time and
8 having the data transmission rate less than the threshold transmission rate.

1 17. The system of claim 14, further comprising:
2 means for determining one pending transaction whose access to the resource has
3 completed;
4 means for removing the determined pending transaction from the log file.

1 18. The system of claim 17, further comprising:
2 means for determining one client that has transmitted a threshold amount of data,
3 wherein the determination and removal from the log file of pending transactions whose access
4 to the resource has completed is made for all the pending transactions of the determined client
5 that has transmitted the threshold amount of data.

1 19. The system of claim 14, wherein an oldest pending transaction logged in the log
2 file is capable of preventing new transactions from being added to the log file.

1 20. The system of claim 14, further comprising:
2 means for providing a first pointer pointing to an oldest pending transaction in the log file
3 that is capable of preventing new transactions from being added to the log file; and
4 means for adjusting the first pointer to point to the next oldest pending transaction in the
5 log file if one of the removed transactions is the oldest pending transaction in the log file,
6 whereby adjusting the first pointer frees space in the log file for new transactions to be added.

1 21. The system of claim 20, further comprising:
2 means for providing a second pointer pointing to a most recently added transaction to
3 the log file; and
4 means for adding a new transaction to the log file by writing information on the new
5 transaction to an address in the log file following the second pointer and adjusting the second
6 pointer to point to the address of the added new transaction, wherein one new transaction
7 cannot be added to the log file if the first pointer addresses a location in the log file adjacent to
8 the location addressed by the second pointer.

1 22. The system of claim 21, wherein new transactions are added to sequential
2 addresses in the log file, further comprising:
3 means for writing information on the new transaction to the first address in the log file
4 and adjusting the second pointer to point to the first address in the log file if the second pointer
5 is at the last address in the log file.

1 23. The system of claim 14, further comprising:
2 a server providing access to the shared resource, wherein the server includes the
3 computer readable medium including the log file.

1 24. The system of claim 23, further comprising:
2 an additional server providing access to an additional copy of the shared resource;
3 means for redirecting transactions from the determined client to the additional server to
4 provide the redirected transaction access to the shared resource.

1 25. The system of claim 14, wherein the resource comprises a storage device and
2 wherein the transactions provide updates to data in the storage device.

1 26. The system of claim 25, further comprising:
2 a client backup program, wherein the update transactions are provided by the client
3 backup program to backup client data in the storage device.

1 27. An article of manufacture for managing client transactions requesting access to a
2 shared resource in a log file, the article of manufacture comprising code capable of causing a
3 processor to perform:
4 logging client transactions in the log file from multiple clients;
5 determining one client transmitting data at a transmission rate less than a threshold
6 transmission rate; and
7 denying subsequent transactions from the determined client access to the shared
8 resource to provide additional space in the log file for new transactions from additional clients
9 requesting access to the resource.

1 28. The article of manufacture of claim 27, wherein the code is further capable of
2 causing the processor to perform:
3 removing all pending transaction of the determined client from the log file.

1 29. The article of manufacture of claim 27, wherein clients submit transactions
2 requesting the resource during a session that the clients initiate, wherein the code is further
3 capable of causing the processor to perform:
4 determining one client session active longer than a threshold time period, wherein the
5 determination of whether the client data transmission rate is less than the threshold transmission
6 rate is made for the determined client whose session is active longer than the threshold time
7 period, and wherein subsequent transactions are denied access to the shared resource for the
8 client having the session active longer than the threshold period of time and having the data
9 transmission rate less than the threshold transmission rate.

1 30. The article of manufacture of claim 27, wherein the code is further capable of
2 causing the processor to perform:
3 determining one pending transaction whose access to the resource has completed;
4 removing the determined pending transaction from the log file.

1 31. The article of manufacture of claim 30, wherein the code is further capable of
2 causing the processor to perform:
3 determining one client that has transmitted a threshold amount of data, wherein the
4 determination and removal from the log file of pending transactions whose access to the
5 resource has completed is made for all the pending transactions of the determined client that has
6 transmitted the threshold amount of data.

1 32. The article of manufacture of claim 27, wherein an oldest pending transaction
2 logged in the log file is capable of preventing new transactions from being added to the log file.

1 33. The article of manufacture of claim 27, wherein the code is further capable of
2 causing the processor to perform:
3 providing a first pointer pointing to an oldest pending transaction in the log file that is
4 capable of preventing new transactions from being added to the log file; and
5 if one of the removed transactions is the oldest pending transaction in the log file, then
6 adjusting the first pointer to point to the next oldest pending transaction in the log file, whereby
7 adjusting the first pointer frees space in the log file for new transactions to be added.

1 34. The article of manufacture of claim 33, wherein the code is further capable of
2 causing the processor to perform:
3 providing a second pointer pointing to a most recently added transaction to the log file;
4 and
5 adding a new transaction to the log file by writing information on the new transaction to
6 an address in the log file following the second pointer and adjusting the second pointer to point
7 to the address of the added new transaction, wherein one new transaction cannot be added to
8 the log file if the first pointer addresses a location in the log file adjacent to the location
9 addressed by the second pointer.

1 35. The article of manufacture of claim 34, wherein new transactions are added to
2 sequential addresses in the log file, and wherein the code is further capable of causing the
3 processor to perform:
4 if the second pointer is at the last address in the log file, then writing information on the
5 new transaction to the first address in the log file and adjusting the second pointer to point to the
6 first address in the log file.

1 36. The article of manufacture of claim 27, wherein access to the resource is
2 provided through a server, wherein the server maintains the log file.

1 37. The article of manufacture of claim 36, wherein the code is further capable of
2 causing the processor to perform:
3 redirecting transactions from the determined client to an additional server providing
4 access to another copy of the resource requested by the client transactions.

1 38. The article of manufacture of claim 27, wherein the resource comprises a
2 storage device and wherein the transactions provide updates to data in the storage device.

1 39. The article of manufacture of claim 38, wherein the update transactions are
2 provided by a client backup program to backup client data in the storage device.

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